Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

General Certificate of Secondary Education
June 2006

MATHEMATICS (MODULAR) (SPECIFICATION B)   **43001/FB**
Module 1   Foundation Tier Section B

F

ASSESSMENT and QUALIFICATIONS ALLIANCE

For this paper you must have:
- mathematical instruments

You must **not** use a calculator.

Time allowed for Section B: 25 minutes

Instructions
- Use blue or black ink or ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- Answer the questions in the spaces provided.
- Do all rough work in this book.
- You may **not** use your calculator in Section B. Your calculator must remain on the floor under your seat.
- When you have answered Section B you may work again on Section A but you may **not** use your calculator. It must remain on the floor under your seat.
- At the end of the examination tag Section A and Section B together with Section A on top.

Information
- The maximum mark for Section B is 20.
- The marks for questions are shown in brackets.
- You may ask for more answer paper and graph paper. These must be tagged securely to this answer book.

Advice
- In all calculations, show clearly how you work out your answer.

43001/FB

Answer **all** questions in the spaces provided.

6 The table shows the favourite milk shakes of fifty students.

Flavour	Tally	Frequency
Strawberry (S)	~~IIII~~ ~~IIII~~ ~~IIII~~ I	
Banana (B)	~~IIII~~ ~~IIII~~ II	
Raspberry (R)	~~IIII~~ III	
Chocolate (C)	~~IIII~~ ~~IIII~~ IIII	

(a) Complete the frequency column. *(1 mark)*
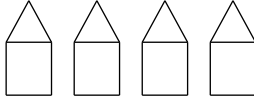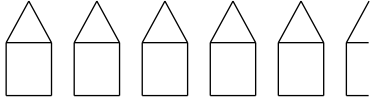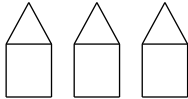
(b) Draw a bar chart to show these results.

Frequency

Flavour
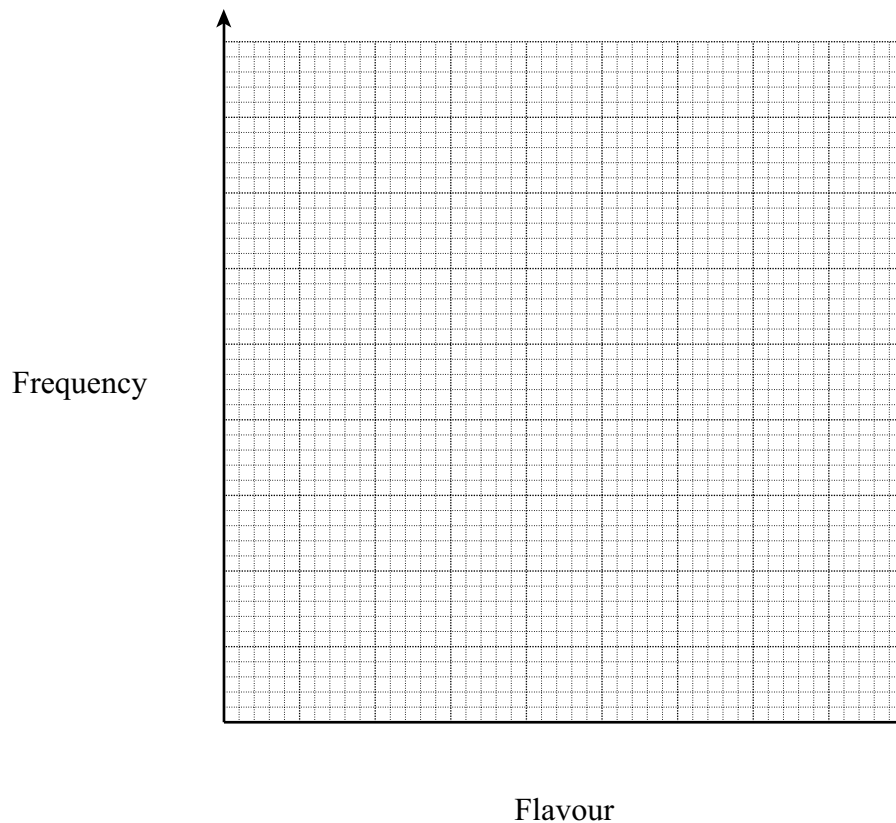
(3 marks)

7 The pictogram shows the number of houses with two, three and four bedrooms built on a housing estate.

 represents 10 houses

There were also 15 houses with five bedrooms built.

(a) Complete the pictogram to show this information. *(1 mark)*

(b) How many houses were built altogether on this housing estate?

....

....

Answer .... *(2 marks)*

3

Turn over for the next question

8 The midday temperatures (°C) in Madrid for 14 days are shown.

32   27   29   35   24   24   32   34   27   26   24   25   31   36

(a) Calculate the median temperature.

....

....

Answer .... °C *(2 marks)*

(b) Calculate the range of these temperatures.

....

Answer .... °C *(1 mark)*

3

9 Here are two fair spinners.

Spinner A has three equal sectors numbered 2, 4 and 6.
Spinner B has four equal sectors numbered 1, 2, 3 and 4.
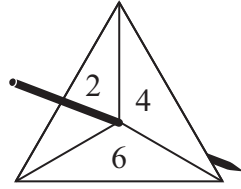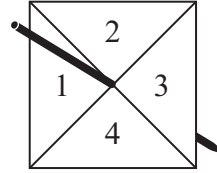
Spinner A   Spinner B

Each spinner is spun once.
The numbers that each spinner lands on are added to get the score.

(a) Complete the table to show all the possible scores.

Spinner A

		2	4	6
	1			
	2			
Spinner B	3			
	4			

(2 marks)

(b) Calculate the probability of scoring more than 7.

....

Answer .... *(2 marks)*

4

10 Jenny plays hockey.
The probabilities of her scoring certain numbers of goals in a match are shown in the table.

Number of goals	0	1	2	3 or more
Probability	0.2	0.4		0.1

Jenny plays 20 matches in one season.

In how many of these matches would you expect her to score exactly 2 goals?

....

....

....

....

....

Answer .... matches *(3 marks)*

3

11 Sunita uses a questionnaire to carry out a survey about mobile phones.

(a) This is one of her questions.

'Do you have a mobile phone and use it to send text messages?'

Write down **one** criticism of this question.

....

....

....
(1 mark)

(b) Sunita wants to find out the number of text messages people send.

Write down a question she could ask.
Include a response section.

....

....

....

....
(2 marks)

3

END OF QUESTIONS